

Claims

1. A method of providing location information in a mobile communication system, comprising the steps of: receiving a request for a current location of a mobile station; determining a time at which a last known location of the mobile station was determined; comparing the time to a threshold time limit; and, in response to the said step of comparing, providing, as the current location, the last known location if the time is within the threshold time limit.
2. A method according to claim 1 further comprising the steps of: determining a current location of the mobile station if the time is not within the threshold limit; and providing, as the current location, the obtained current location.
3. A method according to claim 1 or claim 2 wherein the step of comparing the time to the threshold time limit is dependent upon the status of the mobile station.
4. A method according to claim 3 wherein if the mobile station is active the comparing step is disabled and a current location is determined for the mobile station.
5. A method according to claim 3 or claim 4 wherein if the status of the mobile station is idle, the comparing step is enabled.
6. A method according to any one of claims 2 to 5, wherein if a current location is not provided, the last known location is provided as the current location.
7. A method according to any one of claims 1 to 6 further comprising the step of storing the last known location of a mobile station together with a time associated with the last known location.
8. A method according to anyone of claims 1 to 7 further comprising the step of storing the threshold time limit.
9. A method according to any one of claims 1 to 8 further comprising the step of dynamically adjusting the threshold time limit.
10. A method according to any one of claims 1 to 9 wherein the threshold time limit is set by a network operator.
11. A method according to any one of claims 1 to 9 wherein the threshold limit is included in the request for the current location.
12. A method according to any one of claims 1 to 11 wherein the time is an elapsed time.

13. A method of providing location information in a mobile communication system, comprising the steps of: receiving at a network element a request from an application for a current location of a mobile station; determining, at the network element, a time at which a last known location of the mobile station was determined; comparing, at the network element, the time to a threshold time limit; and, in response to the said step of comparing, providing to the application, as the current location, the last known location if the time is within the threshold time limit.
14. A network element for providing location information in a mobile communication system, comprising: means for receiving a request for a current location of a mobile station; means for determining a time at which a last known location of the mobile station was determined; means for comparing the time to a threshold time limit; and means for providing, as the current location, in response to the said step of comparing, the last known location if the time is within the threshold time limit.
15. A network element according to claim 14 further comprising means for determining a current location for the mobile station if the time is not within the threshold limit; wherein the means for providing is adapted to provide, as the current location, the obtained current location.
16. A network element according to claim 14 or claim 15 wherein the means for comparing the time to the threshold time limit is responsive to a signal indicating the status of the mobile station.
17. A network element according to claim 16 responsive to said signal indicating that the mobile station is active the comparing means is disabled and a current location is determined for the mobile station.
18. A network element according to claim 16 or claim 17 wherein responsive to said signal indicating that the mobile station is idle, the comparing means is enabled.
19. A network element according to any one of claims 15 to 18, wherein if a current location is not provided, the network element is adapted to provide the last known location is provided as the current location.
20. A network element according to any one of claims 14 to 18 further comprising means for storing the last known location of a mobile station together with a time associated with the last known location.

21. A network element according to anyone of claims 14 to 20 further comprising means for storing the threshold time limit.
22. A network element according to any one of claims 14 to 21 further comprising means for dynamically adjusting the threshold time limit.
23. A network element according to any one of claims 14 to 22 wherein the threshold time limit is set by a network operator.
24. A network element according to any one of claims 14 to 22 wherein the threshold time limit is included in the request for a current location.
25. A mobile communication system including an application for providing location dependent services and for generating a location request for a user equipment; a network element for receiving the request for a current location of a mobile station; a network element for determining a time at which a last known location of the mobile station was determined and for comparing the time to a threshold time limit; and a network element for providing, as the current location, in response to the said step of comparing, the last known location if the time is within the threshold time limit.
26. A mobile communication system according to claim 25, wherein the network element for determining the time at which the last known location was determined includes a visitor location register.
27. A mobile communication system according to claim 25 or claim 26 wherein the system implements a CAMEL framework.
28. A mobile communication system according to claim 25 or claim 26 wherein the system implements location services.